Where Did the Votes Go? Reassessing American Party Realignments via Vote Transfers Between Major Parties from 1860 to 2008. *†

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Abstract

Political scientists have long debated theories of electoral party realignments. In this paper, we apply ecological inference methods to statistically analyze the transfer of votes within counties in US presidential elections since 1860. Through this analysis we are able to identify the major periods of party realignment in US history and the counties where these shifts took place. As a result, we are able to provide new insights into American electoral history, and provide strong evidence that the 2008 presidential election did not represent a realigning election as the phrase is generally understood.

Keywords— Realignment, critical elections, United States, Ecological inference

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In the aftermath of the 2008 U.S. presidential election, political commentators were quick to revive the word, "Realignment." Many political scientists also began discussing whether 2008 constituted an electoral realignment (Caswell 2009, Ceaser and DiSalvo 2008, Fisher 2010), though their claims were typically less dramatic than those made by pundits. The precise definition of a realigning election is somewhat nebulous, and many scholars contend the realignment framework has long outlived its usefulness (Mayhew 2004), though others contend the theory remains useful (Nardulli 2005, Merrill, Grofman and Brunell 2008, Paulson 2007, Campbell 2006). We agree that the realignment framework still deserves serious consideration from political scientists. One frequently noted characteristic of a realigning election is a high rate of partisan conversion (Sundquist 1973, Ladd and Hadley 1978, Burnham 1970, Campbell et al. 1960), that is, a realigning election requires many former supporters of one major party to defect and support the opposing party. We focus on this aspect of realignment theory in this paper.

Theories about electoral realignments and "critical elections" have spurred some of the longest-running debates in political science. Electoral realignment has been called "the theory that changed the way we think about American politics" (Rosenof 2003) and even "the eternal question" (Schneider 1982). Realignment is furthermore one of the few concepts in political science given serious consideration by popular writers and journalists. Non-academic political observers have shown great interest in electoral realignments at least since Kevin Phillips wrote *The Emerging Republican Majority* in 1969.

We contribute to the debates surrounding electoral realignments by studying the history of vote transfers and vote retentions by parties in a longitudinal analysis for all U.S. presidential elections since 1860. By applying an ecological inference model to a dataset of county-level results we evaluate to what extent voters changed their partisan loyalties over the course of any two elections. In doing so we shed new light on electoral realignments and critical elections. In congruence with the "Michigan model" (Campbell

et al. 1960), which emphasizes the importance and stability of partisan attachments, we find that voters exhibit high levels of long-term partisan loyalties, and elections with low levels of partisan vote retention are relatively rare. We furthermore find little evidence for a cyclical pattern of partisan realignment, and our results suggest that the 1932 presidential election was perhaps the only election in the historical period under consideration here that possesses all the characteristics of a "critical election." What is more, although the Democratic victories in 2008 were dramatic, our results indicate that voter conversion was nonetheless extraordinarily low in that year, suggesting that 2008 was not a realigning election.

In addition to our contribution to the debates regarding electoral realignments, we provide new findings regarding the partisan "dealignment" of the 1970s (Abramson 1976, Niemi and Weisberg 1976) and the subsequent resurgence of partisanship within the electorate. We also provide new findings regarding the sources of George Wallace and Ross Perot's electoral support in 1968 and 1992, respectively- in both cases, the majority of these candidates' voters supported the Republican candidate in the previous election.

The paper will be organized as follows: in the first section we discuss the state of realignment literature and stress the need for a longitudinal analysis. That is, we explain the limits of individual-level survey data as a tool for understanding U.S. electoral history. In the second section we present the data and the methods that we use. In the third section we present the results and conclude in the last section.

1 U.S. Elections and Realignments

Political scientists have long looked for patterns in American electoral history. Some of the field's most celebrated scholars, such as V.O. Key (1955) and Walter Dean Burnham (1970, 1965), have posited elegant theories regarding the nature of political parties and their cyclical patterns of growth, stagnation, and decline. Theories of electoral "realign-

ment" and "critical elections" have spurred decades of debate within the field. While these theories benefit from their parsimony and plausibility, they are sorely lacking in empirical evidence, as many scholars have pointed out (Carmines and Stimson 1989, Mayhew 2004). Nonetheless, cyclical theories of partisan realignment are not without contemporary defenders (Campbell 2006, Merrill, Grofman and Brunell 2008, Nardulli 1995, Paulson 2007, Mack 2010).

Electoral realignment is not a complicated concept. At its core, a realignment is simply a dramatic change in the distribution of parties' electoral strengths at the national level; that is, one dominant electoral coalition is replaced by another, or, if the same party continues to dominate, its electoral "base" is nonetheless substantially changed. Closely tied to the concept of an electoral realignment are "critical elections" - the electoral earthquakes that break the power of reigning political parties and usher in new electoral eras or "party systems" (Sundquist 1973). The theory of critical elections was introduced into the political science literature in a classic article by V.O. Key (1955). In that article, Key provided the specific characteristics of critical elections: "Even the most fleeting inspections of American elections suggests the existence of a category of elections in which voters are ... deeply concerned, in which the extent of electoral involvement is relatively quite high, and in which the decisive results of the voting reveal a sharp alteration of the pre-existing cleavage within the electorate. Moreover, ... the realignment made manifest in the voting in such elections seems to persist for several succeeding elections." (p. 3) It is not enough for an election to break sharply from past trends; in order to be "critical," an election must represent an enduring new electoral alignment (Clubb, Flanigan and Zingale 1980, p. 55).

1.1 Electoral Realignments: The Debate

In the decades that followed Key's groundbreaking article, scholars continued to categorize presidential elections. Rather than treating elections as being either critical or non-critical, the authors of *The American Voter* suggested that most elections can be described as Maintaining, Deviating, or Realigning (Campbell et al. 1960).[1] Gerald Pomper (1967) added a new category of election: the Converting election. In a Converting election, the largest party retains its majority status, but its voter base is substantially changed. Pomper suggested that the presidential elections in 1960 and 1964 could be categorized as Converting elections. This intuition was largely confirmed when Jonathan Knuckey (1999) reexamined those elections several decades later.

Walter Dean Burnham (1970) added new characteristics of critical elections. Beyond marking a major change in the electoral balance of power, Burnham noted that critical elections are also often characterized by ideological polarization, abnormally high voter intensity, the emergence of third parties, unusual stress on the nation's socioeconomic system, and a large percentage of the population changing its partisan loyalties. Burnham further noted that critical elections typically occur in fairly regular intervals, citing 1800, 1828, 1860, 1896, and 1932 as particularly important elections. The theory of critical elections and partisan realignment was further developed by James Sundquist (1973) who placed aggregate data on presidential elections into their historical contexts in order to better understand the cyclical nature of party systems. The works by Burnham and Sundquist were particularly influential in establishing the theory that critical elections should take place every thirty years or so.

The elections early realignment scholars classified as "critical'' were obviously not chosen at random. There was strong historical evidence to suggest that these elections

[1] According to this classification, a maintaining election is one in which previous patterns of partisan attachment persist; a deviating election is one in which a majority party is defeated, but the basic division of partisan loyalties remains intact; and a realigning election represents, as Key described, a major shift in partisan affiliation.

represented electoral realignments. The 1800 presidential election in which an incumbent was defeated (Federalist John Adams by Democratic-Republican Thomas Jefferson), was the first such election. Jefferson's electoral coalition furthermore proved to be quite stable, as the Federalist Party only declined further in the subsequent elections, finally leading to the "Era of Good Feelings" -lasting from 1817 until 1825 - in which the United States was largely governed by a single political party. 1828 was also a good candidate for a "critical" or "realigning" election because it resulted in the defeat of incumbent president John Quincy Adams by Andrew Jackson, and resulted in the transformation of the Democratic-Republican Party into the Democratic Party based on a new electoral demographic foundation. To call 1860 a realigning or critical election would be a dramatic understatement, as it resulted in the American Civil War. The 1896 election was one of the more complex political battles in American history, but it ultimately resulted in William McKinley establishing a stable Republican coalition of professionals, business owners, skilled workers, and prosperous farmers that is claimed to have dominated American politics for the next three decades. Key (1955) described the 1928 election between Herbert Hoover and Al Smith as a critical election; it is useful to note that Key considered 1928 critical even though Hoover was the victor in that particular contest - according to Key, an election can be considered a realignment even if party control of government does not immediately change hands. Republican dominance of national politics was finally shattered in 1932 when the Great Depression paved the way for Franklin Roosevelt's overwhelming victory, which is generally considered the prototypical realigning election.

Interest in electoral realignments and critical elections reached a peak in the 1960s and 1970s. The theory has largely fallen into disrepute in recent years, however. As scholars examined the data more closely, it became apparent that elections cannot be accurately described as being in one of two categories (critical or not critical). As Edward Carmines and James Stimson noted, "The closer we look, the more these 'simple' realignments

become movements over time, taking decades or multiples of decades to take their final forms ... There is no 'normal' period left, no time when the reshaping of loyalties and behaviors is absent." (1989, p.21).

A damning salvo against realignment theory was more recently launched by David Mayhew (2004). Mayhew argued that realignment theory is not confirmed by the facts of American electoral history. In fact, realignment theories may actually now serve as an impediment to greater understanding of trends in American electoral history. After examining the important literature on realignment theory, Mayhew described fifteen claims made by supporters of the theory that can be tested empirically.[2] Mayhew examined each of these claims, and determined that many of the predictions made by realignment theory proponents are flat-out wrong.

This is not to say that realignment theories are no longer defended. Merrill, Grofman and Brunell (2008) challenged Mayhew's conclusions. After performing a spectral analysis on election data from 1854 through 2006, they concluded that American politics does follow cyclical patterns in a manner analogous to that described by the early realignment theorists. They found, however, that these cycles are much shorter than Burnham and others suggested - domination by one party tends to last for 12 to 15 years, rather than 30 or more. Nardulli (2005) examined aggregate data throughout U.S. history, finding that realigning elections are rare, but occurred in 1856 and 1932 (p. 243). (**?**) also argued that, while infrequent, realigning elections are a historical fact of U.S. history, and argued

[2]The fifteen realignment claims identified by Mayhew are as follows: (1) all American elections can be specified as realigning or not realigning; (2) Electoral realignments occur in regular patterns; (3) Realignments occur in approximately thirty-year cycles; (4) These oscillations can be explained by strengthening or weakening individual party identification; (5) Voter turnout and concern is higher in realigning elections; (6) Tumultuous presidential nominating conventions are a hallmark of realigning elections; (7) Good showings by third party candidates tend to be indicators of a realignment; (8) Electoral realignments correspond to new voter cleavages; (9) Realigning elections are characterized by insurgent-led ideological polarization; (10) Realigning elections hinge on national issues, rather than local issues; (11) Realignments lead to major changes in policy; (12) Realigning elections lead to long periods in which one party dominates government, and that dominance leads to policy innovations; (13) Electoral realignments are associated with new redistributive policies; (14) Realigning elections are periods when the public expresses itself effectively and decisively, but they do not do in non-realigning elections; (15) There was a system of 1896.

that realignments in presidential voting occurred in 1896, 1932, and 1968.

Paulson (2007) also defended realignment theory from Mayhew's critique, arguing that Mayhew failed to distinguish between points that are critical to realignment theory and those that are just minor observations. He suggested Mayhew held realignment theory to an impossible standard; in order for realignment theory to survive Mayhew's challenge, every posited realigning election would have to have all the characteristics associated with realignment theory, and those characteristics must also be absent from all other elections.

Most of the debates surrounding critical elections and electoral realignments predated the development of now-common methodological techniques. The scholars performing the earliest examinations of this phenomenon were forced to look exclusively at aggregate data and to infer individual-level behavior from these data. Even some of the more methodologically-rigorous articles from this period suffered from major problems. Pomper (1967), for example, simply compared the percentage of a state's vote for the Democratic presidential candidate in one election with its vote in the previous election. After gathering these data he simply calculated a Pearson's R correlation statistic, and determined that those elections in which the correlation statistic was low must necessarily have been realigning elections. Whatever its merits, however, this method cannot help us identify changes in party coalitions (Nexon 1980). Nardulli's (2005) use of aggregate data to identify a geographic unit's "normal partisan balance" and find historical examples of deviating elections was more methodologically sophisticated, but, like all methods using aggregate-level data, this method is limited in its ability to provide information about individual-level behavior.

We contribute to this debate by using the most sophisticated methods now available. Specifically, our use of ecological inference models allows us to better understand individual-level changes in partisan behavior in those election cycles that predated the development of contemporary survey methods. As a result, we help overcome the discon-

tinuity in our historical knowledge of American electoral behavior.

1.2 Vote Transfers and Retentions as Descriptors of Realignments and Critical Elections

With competing claims made for and against realignments and critical elections, and with many studies that use methods of analysis that are either inappropriate, or that truncate the number of elections we can study, it is imperative that a serious study of changes across elections from earlier periods of American democracy be undertaken. Only a large longitudinal analysis will allow us to determine whether there were, or not, periodic critical elections and electoral realignments, and, if so, when they occurred.

In this article we seek to further fill this void in the literature by looking for patterns of vote transfers between the major parties. In particular, we are interested in the extent to which there were large vote transfers between parties over the course of two consecutive elections. If such transfers are found we will refer to the latter election as a "critical election" (as per the Critical Elections Hypothesis). If, furthermore, the new partisan distribution remains stable in subsequent elections, we will consider the election to have caused an electoral realignment (as per the Realignment Hypothesis).

Two concepts will be particularly useful in finding critical and realigning elections, these are: *vote transfer* and *vote retention*. Vote retention is the percentage of votes that one party maintains from election at time t to election at time $t+1$. In contrast, a vote transfer is the percentage of votes that one party loses to another party from election at time t to election at time $t+1$. Figure 1 provides a graphical representation of these terms.

In the example of Figure 1, in the election at time t Party A obtained 70% of the votes and Party B 30%. At time $t+1$ Party A obtained only 60% of the votes, while Party B capitalized that extra 10% and obtained a total of 40%. From the 60% of votes that

Figure 1: Vote transfer and Retention

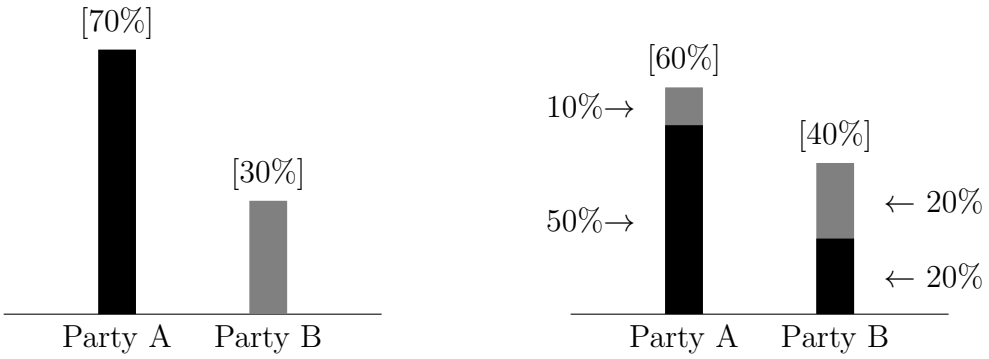


Table 1: Vote transfer and Retention between two parties and two elections

Party	% Votes Obtained		Vote retention	Vote transfer
	Election t	Election $t+1$		
A	70%	60%	(50%) 0.71	(20%) 0.29
B	30%	40%	(20%) 0.33	(20%) 0.67

Party A won, only a portion (50%) had voted for Party A at time t, while the rest (10%) had voted for Party B in the election at time t. Similarly, the 40% of voters for Party B came from the voters who switched from A to B (20%) and the voters who remained loyal to B (20%). In this example we would say that Party A had a vote retention of 0.71 (50/70) and had a vote transfer to Party B of 0.29 (20/70), and that Party B had a vote retention of 0.67 (20/30) and had a vote transfer to Party A of 0.33 (10/30) (as shown in Table 1).

While the concept of vote transfers between parties introduced above is rather straightforward, estimating individual vote transfers between parties using aggregate data alone provides serious methodological challenges. We explain our effort to surmount these challenges in the next section.

2 Aggregate County-Level Data and Ecological Inference

The birth of the Michigan school of voter survey analysis allowed scholars to rigorously examine individual voter behavior. This advance permitted scholars to examine trends in voting behavior without risk of engaging in the ecological fallacy (Robinson 1950). This research also provided compelling evidence for the socio-psychological model of the origins of partisanship and voting (Campbell et al. 1960). However, advances in survey methods could obviously not be applied to past elections, thus we remain without meaningful individual data for all elections prior to the 1930s. In order to overcome this problem while at the same time going as far back as possible we will use electoral results at the lowest possible aggregation level. And, by means of state-of-the-art ecological inference methods, we will avoid making an ecological fallacy while at the same time evaluating the history of presidential voting patterns in the United States.

Given our interest in vote transfers and vote retention as a means of understanding the history of party realignments and critical elections, in this longitudinal analysis we believe that using aggregate level data is not only necessary but ideal. First, only aggregate level data will allow us to go as far back in time as it is necessary to carry out this analysis. Second, while we could estimate vote transfers and retention patterns from surveys, survey data can tell us relatively little about the geographic scope of changes in American electoral behavior, particularly if we are interested in relatively small geographic units. Furthermore, by using aggregate-level data and estimating vote transfers and retentions we will be able to make assessments regarding trends in aggregate vote patterns in the periods under consideration.

2.1 County-Level Data, 1860-2008

For the purposes of this study, electoral results by county were obtained from the 1860 election to the 2008 election.[3] The results from the 1860 to 1988 elections were obtained from the Inter-University Consortium for Political and Social Research -ICPSR- (Studies number 0013 and 8611) and the results for the 1992 to 2008 elections were obtained from the CQ Voting and Elections database. County level results were the smallest aggregation level with relatively fixed boundaries available. Aggregate data will allow us to evaluate, in the absence of survey data, patterns of vote transfers and retentions for the duration of the period studied here.

In order to control for population and territorial characteristics we assembled a set of covariates. These covariates used were obtained from the 1850 to 2000 Census. Specifically, we used the "Historical, Demographic, Economic and Social Data" provided by ICPSR (Study number 2896).[4] Four covariates were selected from the available data because of their presence in all of the census data sets available to us, these are: total population, total white population, total black population, and region; the three population measures were normalized by taking the natural logarithm.[5] These four covariates allow for controlling different fundamental characteristics of voters' behavior in the United States. In particular, these covariates allow us to control for the historical strong regional differences in voting patterns (Fischer 1989), the historic urban/rural differences -controlled by the county population sizes-, and the degree to which blacks have voted as a bloc and the degree to which a substantial local African American population has historically influenced the local white population's voting behavior (Key 1949).

[3]It would, of course, have been possible to extend this study further, covering all presidential elections in American history. We chose not to do so, however, because of the relative frequency with which parties split, new parties arrived on the scene and parties changed names during the period prior to 1860.

[4]The specific variables chosen for each pair of elections, and their summary statistics, can be found in Appendix I.

[5]Only for one of the studies was the total of black population not available, see Appendix 1

2.2 Ecological Inference with Covariates

Given the aggregate nature of our data and our attempt to extract individual-level behavior from aggregate results, we have chosen to use an ecological inference approach for the estimation. Ecological inference models, however, have been historically controversial due to their propensity to lead researchers to commit ecological fallacies. Simply stated, an 'ecological fallacy' is committed when aggregate data are used to make assumptions about individual behavior, a problem that was first raised by William Robinson (1950). In an analysis of ecological and individual correlations, Robinson found that ecological correlations cannot "validly be used as substitutes for individual correlations" (p. 357). The problem with ecological correlations is that they lead researchers to make incorrect inferences by analyzing the correlations of different aggregate-level variables. For instance, if a county is 40% female and, in a two way race, one candidate (D) obtains 40% of the vote in that particular county, using ecological correlations might lead a researcher to mistakenly assume that all females in that county voted for that candidate (D).

Since Robinson's critique, however, new and more sophisticated statistical techniques and methods have been developed to analyze aggregate level data, greatly aided by the increased power of computers. As a result, we have witnessed an increased interest in these models and in debates over the appropriateness of the different models (see Freedman et al. 1991, Grofman 1991, Achen and Shively 1995, King 1997, Cho 1998, Cho and Gaines 2004, Herron and Shotts 2004, King, Rosen and Tanner 2004, Wakefield 2004, Imai, Lu and Strauss 2008). These new statistical techniques allow the use of 'ecological regressions' to make ecological inferences while avoiding the ecological fallacy. The ecological regressions first introduced by Goodman not only allowed researchers to make ecological inferences but permitted others scholars to build upon them.

Given our interest in understanding how votes transferred between parties from one election to another, we need an approach that allows us to include the county level votes

that parties obtained in election t and the votes obtained in election $t-1$. To this end, the model used to estimate transfers of votes between parties in the United States by county (see Table 2) is based in King (1997), King, Rosen and Tanner (1999), Rosen et al. (2001), and Wittenberg, Bhaskar and Lau (2007). This model is a multinomial-Drichlet hierarchical model for $R \times C$ tables ($R \geq 2$ and $C \geq 2$) with covariates. Its usage provides two advantages: first it allows us to have a different number of parties in both elections with R parties in election at time $t-1$ and C parties in election at time t; second, it provides the benefit of using covariates in the estimation. Introducing covariates allows for the distribution of the estimation parameters to be more flexible (King 1997, King, Rosen and Tanner 1999, Rosen et al. 2001). Furthermore it permits a representation of differences between the units of analysis in the understanding that not all units of analysis are created equal.

Because of the nature of individual-level analysis using aggregate level results, Ecological Inference continues to be a highly contentious statistical technique. $R \times C$ ecological inference, introduced by King (1997), has been criticized for inaccurately estimating population behavior (Freedman et al. 1998, 1999, Anselin and Cho 2002). At the same time, however, it has been successfully used to predict electoral behavior in different settings (King 1997, Rosen et al. 2001, Lublin and Voss 2002). Its extensions in King, Rosen and Tanner (1999) and Rosen et al. (2001) have subsequently solved problems found in the original model (Rosen et al. 2001).

The use of these techniques is permissible under different assumptions that substitute the information lost while aggregating data. The most important assumption is the aggregation bias assumption, which warns that the classifications used to infer the results are mutually exclusive (Goodman 1953, 1959, Cho 1998).[6]

[6]In particular, Goodman (1959) argues for the usage of two dichotomous classifications. As such the 2x2 case has been the most widely used way to make ecological inferences (examples include (King 1997, King, Rosen and Tanner 1999), etc). However, as shown by Rosen et al. (2001), by using Bayesian Inferences though an MCMC approach we can expand the 2x2 case to an RxC case.

Because of the size of the data set used in this study, the use of demographic covariates for our estimates, and the estimation of our results via bootstrapping techniques with standard errors we are confident that this test is robust. Given that ecological inferences are made from population groups, particularly useful covariates are group characteristics from the moment the aggregate data was collected. For example, census data has been used to estimate voting behavior (King 1997, Calvo and Escolar 2003, Rosen et al. 2001, Lublin and Voss 2002).

In conclusion, we argue that the approach we chose to analyze these data is the appropriate method for reaching our goal of better understanding the historical trends in aggregate voting behavior in the United States, in particular the transfer of votes between different parties. We furthermore argue that this method can provide new insights into old debates regarding electoral partisan realignment and the current debate on whether the 2008 election represented a shift in voter behavior.

2.3 Understanding Realignments from Vote Transfers

The data for this analysis consists primarily of 3×3 tables for each of the $p = 3143$ US counties.[7] For each individual county i ($i = 1, \ldots, p$), we observe the fraction of residents who voted Democrat, Republican, or Other for one presidential election ($X_{1i} \ldots X_{Ri}$) and the fractions of residents who voted Democrat, Republican, or Other for the subsequent presidential election (i.e. four years later) ($T_{1i} \ldots T_{Ci}$) . The unobserved quantities ($\beta^i_{rc}, r = 1, \ldots, R-1, c = 1, \ldots, C-1$) are the fractions of people who voted for party r in election 1 and who voted for party c in election 2 (see Table 2).

As mentioned above, to analyze the data we employ an ecological inference approach that allows the use of covariates to model county level specific aspects. While the in-

[7]Because not all elections since 1860 have the same number of states and as a result of counties this number varies according to the counties common to the two elections analyzed for each iteration of the model.

Table 2: Notation for County i in a 3×3 table

Voting decision Election 1	**Voting decision Election 2**			
	Democrat	**Republican**	**Other**	**Total**
Democrat	β^i_{11}	β^i_{12}	$1 - \beta^i_{11} - \beta^i_{12}$	X_{1i}
Republican	β^i_{21}	β^i_{22}	$1 - \beta^i_{21} - \beta^i_{22}$	X_{2i}
Other	β^i_{31}	β^i_{32}	$1 - \beta^i_{31} - \beta^i_{32}$	$1 - X_{1i} - X_{2i}$

terpretation of the results is straightforward, as per Table 2, the unobserved quantities which we are estimating are the fractions of people who voted for party r in election 1 and who voted for party c in election 2. In general each election provides $n \times m$ results, where n is the number of parties in election 1 and m the number of parties in election 2. Since our estimates usually include no more than 3 possible choices (Democrats, Republicans, and Other parties)[8] we have in most cases 9 found quantities as results. The results for a specific county can be interpreted as the proportion of people in county x who voted Democratic in election 1 and voted Democratic, Republican, or Other in election 2; similar for the other two parties.

To understand partisan realignments we look at the size of these figures (β^i_{rc}), in particular at the size of the retention of votes by both Democrats and Republicans (i.e. the proportion of votes transferred to the same party) and at the size of transfers between major parties (Democrats to Republicans and Republicans to Democrats). If the sizes of vote transfers are larger than .20, and the there is not a substantial transfer back in the immediately subsequent elections, we can plausibly describe an election as "realigning". The choice of 20 points as our cutoff may seem somewhat arbitrary, but it is the same value used by Nardulli (2005) to define a critical change. We will begin our analysis by looking at national level results without usage of covariates, we take this approach to observe general patterns across elections; this analysis is then followed by a more thorough examination of individual elections.

[8]Not all cases include only these three choices, some elections include other small parties due to their relevance in that particular election, all parties in the analysis can be seen in Appendix II.

3 Vote Transfers from 1860 to 2008

In an attempt to understand and identify patterns in the transfer of votes between parties, an analysis of vote transfers was first performed for every subsequent pair of elections from 1860 to 2008. As a point of clarification, it is important to note how this analysis dealt with the entrance of new states to the Union, as well as the return of Southern states to the Union following the Civil War. In this analysis, a state's first election following admittance to the United States is not included, as there is no baseline from which to determine vote transfers. For example, Wyoming became the 44th state in 1890. Thus 1892 was the first year in which it provided electoral votes in a presidential election, and 1896 is the first year in which Wyoming's presence is included in this analysis.

This initial analysis did not use any covariates, and was performed with the aim of obtaining a national aggregate of vote transfers between parties. As a result, while the data consisted of all vote percentages for each major party in every county, the results obtained were aggregate measures. In the absence of covariates transfers are estimated based on the average of individual county estimates across all data points.[9]

Figure 2 show the results of the analysis and presents some interesting findings.[10] First of all, it shows a high level of stability in partisan voter preferences as demonstrated in the high retention rate shown on the top graph. Votes retained by a party are those that in the analysis remain in the party, i.e. Democrats to Democrats. Second, the results show that there are relatively few elections where major party votes are transferred between the two major parties and to third parties. In particular only the 1912, 1932, 1948, 1952, 1964, 1968, 1976, and 1992 elections show any large transfers from Democrats to Repub-

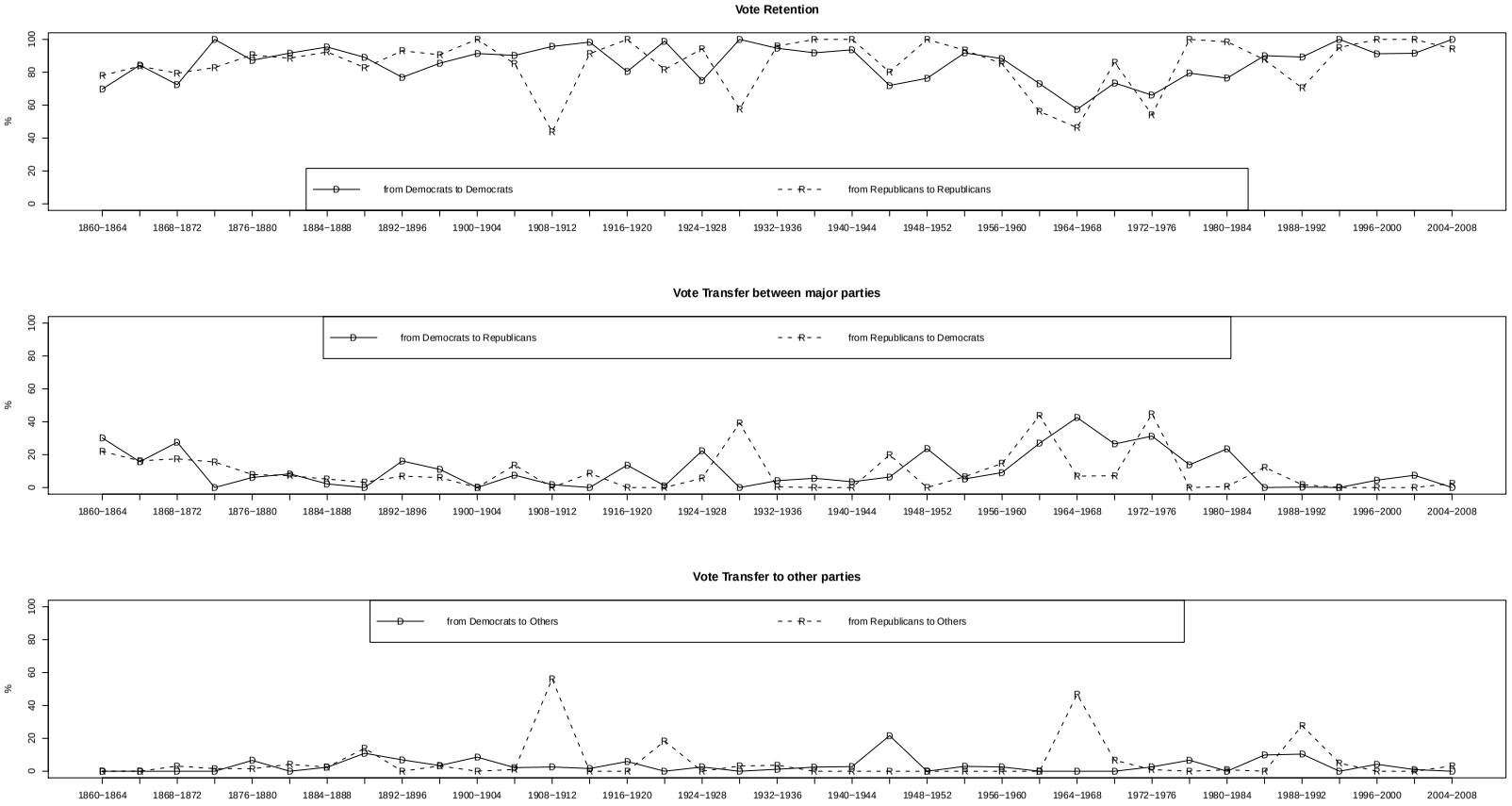
[9]Due to the relative importance of some third parties in particular elections some election estimates include up to 5 party classifications. For a list of the parties used for each election see Appendix II.

[10]Actual mean estimates and standard deviations bases on a bootstrap analysis are presented in Appendix II.

licans, Republicans to Democrats, or to other parties.[11] Third, the results affirm many of the claims that Mayhew (2004) made regarding realignments and American elections. Specifically, our findings seem to disconfirm the idea that there is a regular and cyclical pattern in American politics. Fourth, it shows very little evidence for Key's contention that 1928 was a realigning election, and relatively little evidence for Burnham's suggestion that 1896 represented a realigning election – the transfer of votes from Democrats to Republicans was relatively modest compared with many of the transfers witnessed in the subsequent century. Finally, it shows the increasing partisan stability in the last decade of the 20th century and in the first elections of the 21st century - there were only a negligible number of vote transfers between Democrats and Republicans in those years. Since the 1992 election the retention of votes by Democrats and Republicans was typically higher than 90 percent, and the two elections where the retention by one party was lower were those were the election resulted in a shift in control of the presidency (2000 and 2008). Even in these elections, however, the stability was quite high, meaning neither of these elections are good candidates for realigning or critical elections. Having looked at these national aggregates let's now look at specific elections and periods.

[11] All the cases where the transfer of votes to third parties are high are the result of a prominent third party candidate (Wallace in 1968, Perot in 1992, etc). For graphical purposes transfers to parties other than Democrats or Republicans were added in "others".

Figure 2: Aggregate Vote Retention and Vote Transfers for every pair of elections 1860-2008



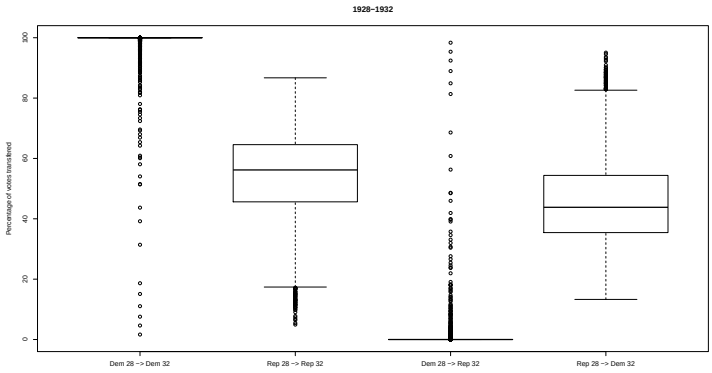
3.1 Former Republicans Voting Democrat in 1932

The election of Franklin Roosevelt does exhibit the characteristics of a critical, realigning election. In this election, there was clearly a major switch in party preferences among a large percentage of the electorate. This major shift furthermore proved to be stable in the subsequent elections. This transition was especially stark given the long period of Republican domination of national politics that preceded 1932, and the long-term Democratic dominance that followed 1932

Table 3: Summary statistics vote transfer 1928-1932

Transfer	N	Mean	Std Dev	Min	Max
Democrat 1928 - Democrat 1932	3075	0.97	0.08	0.16	0.99
Democrat 1928 - Republican 1932	3075	0.03	0.08	2.14E-06	0.81
Republican 1928 - Democrat 1932	3075	0.48	0.15	0.14	0.98
Republican 1928 - Republican 1932	3075	0.52	0.15	0.01	0.86

Figure 3: Boxplots of Vote Transfers between the 1928 and 1932 election by County



More specifically, the results show a strong transfer of votes from Republicans in 1928 to Democrats in 1932. Figure 3 and Table 3 show the extent to which this transfer took place. While the mean votes transferred from Democrats in 1928 to Republicans in 1932 was 0.03, the mean transfer from Republicans to Democrats was 0.52. Furthermore, the extent to which these transfers occurred with a regional pattern is particularly strong. The South and the west in particular transferred over 50% of Republican votes to FDR in

1932 (see Figure 4). It is important not to overstate the significance of this figure, however. The Republican Party was relatively weak in the South prior to 1932 (Democratic Governor Al Smith won a majority of the Southern states in 1928), so those transfers were not particularly influential, at least in regard to Electoral College votes. Much more important, however, was the massive defection of Republicans in the western states. In 1928, Herbert Hoover won every state west of Arkansas. In 1932, a massive number of former Hoover voters voted against him. In fact, according to this analysis, in almost every county west of the Dakotas, more than 50 percent of all Republican voters in 1928 became Roosevelt voters in 1932.

Figure 4: Counties were the votes transferred from 1928 Republicans to 1932 Democrats were greater than 50%

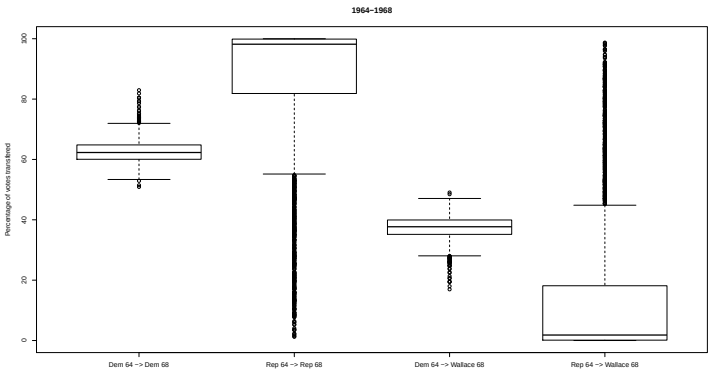
However, as stated previously, for an election to meet the standard of "realigning," it is not sufficient for it to exhibit a short-term change in allegiances from parties; rather, this change must be maintained in subsequent years. In this sense, our finding regarding the high levels of vote retention by both Democrats and Republicans in the subsequent elections (starting from 1932 to 1936) demonstrates that this election did represent a stable realignment (see Figure 2).

3.2 The 1960s and 1970s and the Break-Up of the Democratic Coalition

Different elections in the 1960s and 1970s have been considered realigning elections. However, the results we present raise questions as to exactly which, if any, election should bear the label. As we see in Figure 2, vote retention during this period was historically low, but it was low for both parties. Comparing each of the elections during this period to the 1932 presidential election makes it clear that none of these campaigns were analogous

to the Roosevelt vs. Hoover election. In this sense, the scholars who suggested a cyclical pattern to partisan realignments - in which a 1932-style critical election occurs every couple of decades - were wrong. It is true that the late 1960s and early 1970s witnessed a crack-up of the strong Democratic New Deal coalition, but it was not immediately replaced by a new stable, dominant coalition. The degree to which George Wallace drew previous Republican and Democratic voters adds further confusion to this question. Voter stability in presidential elections did not return to American politics until the 1980s, and even after it did, neither party was able to simultaneously dominate both the executive and legislative branches for more than two election cycles at a time (the Democrats held the presidency and both houses of Congress from 1992 until 1994, and the Republicans from 2002 until 2006).

Figure 5: Boxplots of Vote Transfers between the 1964 and 1968 election by County



An important caveat must be added to these findings. Our ecological inference model necessarily assumes that the population within every county is stable between any two elections - that is, that the voters in a county in one election are the same voters who participated in the previous election. In most elections, this assumption is largely correct. Four years is a relatively short period of time, and the issue of generational replacement is largely mediated by the degree to which party identification tends to get passed from one generation to the next (Jennings and Niemi 1981, Campbell et al. 1960). Nonetheless,

the 1960s and 1970s was a period of substantial demographic change. This was an era in which the seventy-six million members of the "Baby Boom" generation were entering the electorate, and this demographic shock wave was likely the source of some of this instability. Similarly, the Voting Rights Act of 1965 may also be partly responsible for the perceived voter instability of this period. As the voting practices that disenfranchised African Americans were outlawed, a large number of new voters suddenly appeared in the South, and the voting patterns of African Americans were decidedly different from the voting patterns of white Southerners. However, an examination of county population estimates from 1969 to 2009 by age group and race suggests that no massive population changes occurred within any single four-year period (See Appendix IV). For this reason, we are confident that the voter instability exhibited during this era was the result of actual vote transfers between parties, not demographic changes.

Nonetheless, even if this instability was more the result of demographic change and the end of African American disenfranchisement than of individual voters changing their partisan identification, the important thing to note is that it did not clearly benefit one major political party or the other. Furthermore, although the post-World War II Baby Boom was a major demographic event, it was not the only period of significant demographic change in the United States during the period under consideration here. Throughout American history the nation experienced periods of mass immigration as well as internal migration, and none of those demographic changes led to electoral instability on a scale comparable to the 1960s and 1970s. There are also reasons to suspect that the return of African Americans to the Southern electorate was not the primary cause of this instability; we do not see a similar level of instability when blacks were initially disenfranchised following Reconstruction. This is true despite the fact that African Americans were a greater percentage of the U.S. population the 1890s than they were in the 1960s. In spite of these caveats, the initial finding remains valid: no election during this period exhibits

the hallmarks of a "critical election."

3.3 1988-1992: Clinton, Bush, and Perot

The last election to see a relatively large transfer of votes to a third party candidate was the 1992 election. This election, where the Republican incumbent George H. W. Bush lost to the Democratic challenger, showed how a significant third party candidate (Ross Perot) can meaningfully influence an election. While significant numbers of both 1988 Democratic and Republican voters went to Perot in 1992 (as shown in Figure 6) it is useful to note the size of the transfer from Republicans in 1988 to Perot in 1992. As Figure 7 demonstrates, there were a large number of counties throughout the Midwest, East and South in which more than 25 percent of former Republican voters transferred their votes to Ross Perot. If we consider that, in many of these states, Bill Clinton beat George H.W. Bush by fewer than 10 percentage points, we can plausibly say that the shift of Republican votes away from Bush to Perot was largely responsible for Bill Clinton's electoral success. This is congruent with other research on the 1992 election, such as that by Alvarez and Nagler (1995). And supplements those findings by Stone and Rapoport (2001) and Rapoport and Stone (2005) on the influence of Ross Perot on the American two-party system.

Figure 6: Boxplots of Vote Transfers between the 1988 and 1992 election by County

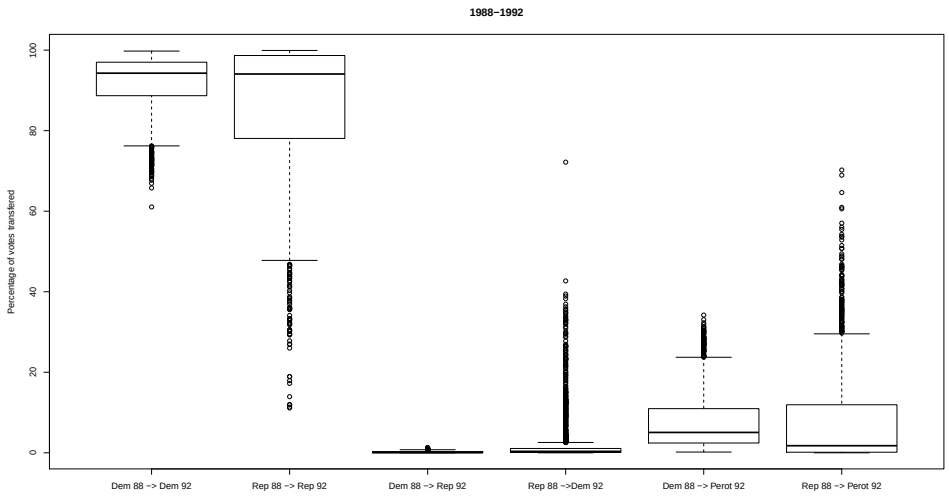


Figure 7: Counties were the votes transferred from 1988 Republicans to 1992 Perot were greater than 25%

4 Conclusion

Our findings provide evidence for some hypotheses provided by realignment scholars, and challenge other aspects of that literature. First of all, our findings suggest that there was, in fact, at least one "critical" election in which a large percentage of the public changed their voting patterns and those patterns remained relatively stable in subsequent elections. The 1932 election of Franklin Roosevelt is the clearest example of such an election.

The important thing to note, however, is that 1932 is an unusual case and there is little evidence for any analogous elections in the period of American history under consideration here. In fact, these data indicate that 1932 was the only election in this period that exhibits all of the characteristics of a critical election. If, for example, a critical, realigning election is characterized by a large percentage of the population changing its established voting patterns, we see little evidence that the 1896 election can be classified as realigning - voting patterns were only marginally less stable in that year than in the other elections of that period. Nor do we see much evidence for Key's contention that 1928 was a critical election, as both parties exhibited relatively high levels of voter retention in that year. The relative partisan stability that followed the 1980 election may make it a plausible candidate for a critical election, but it is important to note that the number of voters who actually changed their party preferences in that election was actually rather modest.

Although different elections in the 1960s and 1970s have received the "Realignment" classification, no single election stands out in this analysis as being "critical." It appears that, in 1964, large numbers of former Democrats voted for the Republican candidate, and then in 1968 many of those same voters chose George Wallace (these results suggest that almost all Wallace voters in 1968 voted for the Republican candidate in the previous election). It appears that those same voters returned to the Republican fold in the subsequent election. Which election, then, should we classify as critical? Furthermore,

whichever of those elections we choose, it seems inappropriate to classify it as realignment given that the electorate did not quickly settle into a new equilibrium. These results indicate that the 1970s were characterized by extraordinarily-low voter retention for both parties. It was not until 1980 that both parties again established a highly-stable voter base. On the other hand, although there was not a single election during this period in which one party enjoyed a huge defection from the other party without also suffering substantial defections of its own, that does not mean we cannot view this period as a period of gradual, secular realignment. The electorate was more Republican, in the aggregate, at the end of this period than it was at the beginning.

On that subject, our results demonstrate why theories of the electorate's "dealignment", which were especially influential in the late 1970s and early 1980s, seemed so plausible at the time (Norpoth and Rusk 1982, Abramson 1976). The unprecedented partisan instability of the 1970s suggested that partisan loyalties were waning substantially, and political scientists expended much effort attempting to understand why this was the case. Ironically, just as dealignment theories were reaching the peak of their influence, the American electorate was settling into perhaps the most stable period of party identification in American history - a stability that has remained largely undiminished to this day. On this subject, our results are in agreement with the argument, made by Larry Bartels (2000), that the "conventional wisdom regarding the 'decline of parties' is both exaggerated and outdated." Bartels pointed out that partisan loyalties have rebounded since the 1970s, an argument strongly confirmed by the results presented here. We should hasten to note, however, that our findings provide an important defense for the scholars during that era who perceived a major dealignment; the 1960s and 1970s was an era characterized by partisan instability, and the rise of independent voters during these years was therefore not a "myth" (Keith et al. 1992).

Considering these results, it is also hard to find the discernable patterns that re-

alignment scholars claimed were present throughout American history. There is not, for example, the predictable spike in vote transfers between the parties every thirty years or so that early realignment scholars suggested we would find. We see substantial percentages of the electorate switching from one of the two major parties to the other in 1932, 1964, 1968, and 1976. We see smaller, but still meaningful, changes in partisan vote choice in 1872, 1952, and 1984. Given the lack of any clear pattern, these results allow us to reject the notion that the American electorate exhibits any predictable oscillations in partisan presidential vote choice.

It furthermore is difficult to argue that strong third-party candidates are any indicator of realignments. Theodore Roosevelt's third-party candidacy was critical to Woodrow Wilson's election, but does not appear to have fundamentally altered the distribution of voters in the subsequent elections. Ross Perot's quixotic 1992 presidential bid clearly benefited President Bill Clinton, as it appears that most of Perot's supporters had previously supported Republicans. However, the period following that election has been remarkably stable. In fact, voters in the last four elections have been remarkably consistent, showing very little change whatsoever, and, if we accept the idea that realigning elections exhibit high rates of partisan conversion, we see virtually no evidence that 2008 represented a realignment.

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A Appendix I.- List of Covariates used per election

Elections	Census	Total Pop (Ln)	White Pop (Ln)	Black Pop (Ln)	Region
1888-1892	1890	X	X	X	X
1928-1932	1930	X	X		X
1960-1964 1964-1968	1960	X	X[11]	X[11]	X
1968-1972	1970	X	X	X	X
1988-1992	1990	X	X	X	X

[11]The 1960 census variables for White population and Black population include only Male population over 21 years old.

B Appendix II.- List of parties included in analysis per election

Year	**Parties**[12]			
1860	Democrats	Republicans	Southern Democrats	Constitutional Union
1864	Democrats	Republicans		
1868	Democrats	Republicans		
1872	Democrats	Republicans		
1876	Democrats	Republicans		
1880	Democrats	Republicans		
1884	Democrats	Republicans		
1888	Democrats	Republicans		
1892	Democrats	Republicans	Populist	
1896	Democrats	Republicans		
1900	Democrats	Republicans		
1904	Democrats	Republicans		
1908	Democrats	Republicans		
1912	Democrats	Republicans	Progressive	
1916	Democrats	Republicans		
1920	Democrats	Republicans		
1924	Democrats	Republicans		
1928	Democrats	Republicans		
1932	Democrats	Republicans		
1936	Democrats	Republicans		
1940	Democrats	Republicans		
1944	Democrats	Republicans		
1948	Democrats	Republicans	Dixiecrats	
1952	Democrats	Republicans		
1956	Democrats	Republicans		
1960	Democrats	Republicans		
1964	Democrats	Republicans		
1968	Democrats	Republicans	Wallace	
1972	Democrats	Republicans		
1976	Democrats	Republicans		
1980	Democrats	Republicans		
1984	Democrats	Republicans		
1988	Democrats	Republicans		
1992	Democrats	Republicans	Reform	
1996	Democrats	Republicans		
2000	Democrats	Republicans	Green	
2004	Democrats	Republicans		
2008	Democrats	Republicans		

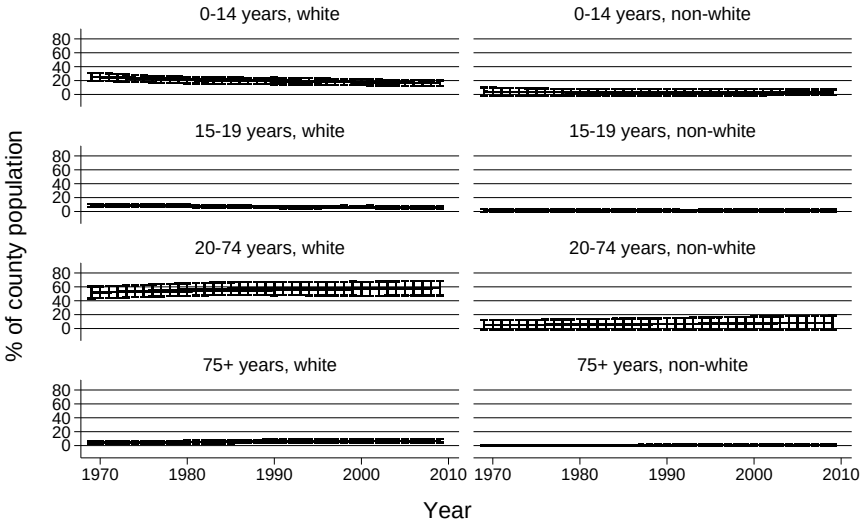
C Appendix III.- Estimate of Vote transfers from Demo-crats to Democrats and Republicans and from Republicans to Democrats and Republicans

Elections	Dem to Dem	Dem to Rep	Rep to Rep	Rep to Dem
1860-1864	0.69	0.3	0.77	0.22
	(0.075)	(0.049)	(0.04)	(0.041)
1864-1868	0.84	0.15	0.84	0.16
	(0.01)	(0.011)	(0.009)	(0.009)
1868-1872	0.72	0.27	0.8	0.18
	(0.011)	(0.011)	(0.011)	(0.011)
1872-1876	1	0	0.83	0.16
	(0.002)	(0.001)	(0.005)	(0.005)
1876-1880	0.87	0.06	0.91	0.08
	(0.009)	(0.007)	(0.01)	(0.012)
1880-1884	0.92	0.08	0.89	0.07
	(0.006)	(0.006)	(0.008)	(0.012)
1884-1888	0.95	0.02	0.92	0.05
	(0.007)	(0.007)	(0.008)	(0.009)
1888-1892	0.89	0	0.83	0.03
	(0.012)	(0.003)	(0.007)	(0.013)
1892-1896	0.77	0.16	0.93	0.06
	(0.012)	(0.008)	(0.011)	(0.019)
1896-1900	0.86	0.11	0.91	0.06
	(0.009)	(0.008)	(0.008)	(0.011)
1900-1904	0.91	0	1	0
	(0.005)	(0.002)	(0.000018)	(0.0000028)
1904-1908	0.9	0.08	0.85	0.14
	(0.005)	(0.008)	(0.005)	(0.006)
1908-1912	0.96	0.01	0.44	0
	(0.007)	(0.007)	(0.007)	(0.003)
1912-1916	0.99	0	0.9	0.08
	(0.006)	(0.001)	(0.012)	(0.024)
1916-1920	0.8	0.14	1	0
	(0.003)	(0.006)	(0.000022)	(0.0000048)
1920-1924	0.99	0.01	0.82	0
	(0.004)	(0.004)	(0.005)	(0.0000088)
1924-1928	0.75	0.22	0.94	0.05
	(0.009)	(0.008)	(0.01)	(0.016)

[12]For every election other parties are added up and included as "others".

Elections	Dem to Dem	Dem to Rep	Rep to Rep	Rep to Dem
1928-1932	1	0	0.58	0.39
	(0.000016)	(0.0000025)	(0.004)	(0.004)
1932-1936	0.95	0.04	0.96	0
	(0.002)	(0.002)	(0.005)	(0.006)
1936-1940	0.92	0.06	1	0
	(0.002)	(0.002)	(0.0000054)	(0.00000097)
1940-1944	0.94	0.04	1	0
	(0.002)	(0.004)	(0.001)	(0.001)
1944-1948	0.72	0.06	0.8	0.2
	(0.015)	(0.009)	(0.013)	(0.021)
1948-1952	0.76	0.24	1	0
	(0.005)	(0.005)	(0.001)	(0.00014)
1952-1956	0.92	0.05	0.93	0.06
	(0.005)	(0.007)	(0.004)	(0.003)
1956-1960	0.88	0.09	0.85	0.14
	(0.008)	(0.014)	(0.007)	(0.007)
1960-1964	0.67	0.31	0.53	0.46
	(0.012)	(0.012)	(0.01)	(0.01)
1964-1968	0.55	0.45	0.42	0.1
	(0.01)	(0.01)	(0.014)	(0.014)
1968-1972	0.7	0.22	0.89	0.1
	(0.018)	(0.011)	(0.007)	(0.012)
1972-1976	0.65	0.31	0.54	0.45
	(0.07)	(0.054)	(0.028)	(0.028)
1976-1980	0.79	0.14	0.99	0
	(0.003)	(0.005)	(0.007)	(0.000058)
1980-1984	0.76	0.23	0.99	0.01
	(0.006)	(0.005)	(0.004)	(0.004)
1984-1988	0.91	0	0.88	0.12
	(0.013)	(0.00016)	(0.003)	(0.006)
1988-1992	0.9	0.01	0.7	0.01
	(0.01)	(0.013)	(0.01)	(0.006)
1992-1996	1	0	0.95	0
	(0.001)	(0.000037)	(0.006)	(0.003)
1996-2000	0.91	0.05	1	0
	(0.002)	(0.005)	(0.000073)	(0.000011)
2000-2004	0.92	0.07	1	0
	(0.003)	(0.003)	(0.0000081)	(0.0000015)
2004-2008	1	0	0.94	0.03
	(0.000017)	(0.0000027)	(0.002)	(0.002)

D Appendix IV.- County population stability: Mean Percentage of county population by age group and race 1969-2009



Mean of county percentages with 1 standard deviation